

MODULE III GOFF MOUNTAIN LANDFILL

III-A EFFECT OF PERMIT (40 CFR §§270.4, 270.30(g), and §22-18-8(a) of the West Virginia Code)

The Goff Mountain Landfill (GML) is located north of State Route 25 and adjacent to Goff Mountain Landfill Road. Operation of the landfill began prior to 1980. The landfill has received hazardous and non-hazardous industrial wastes from the Institute Site, DOW/UCC south Charleston Plant and the DOW/UCC South Charleston Technical Center. The majority of waste being disposed of under this permit is waste sludge filtercake (F039) and some non-hazardous waste, both generated at the Institute Site. Bayer does not intend to accept any off-site waste for disposal in the GML.

III-B WASTE IDENTIFICATION

The permittee may dispose of the following waste from the Institute Plant in the Goff Mountain Landfill, subject to the terms of this permit and only if the concentration of these wastes' constituents are below the treatment standards provided in Subpart D of Part 268 and provided the wastes are not in liquid form.

<u>EPA Hazardous Waste Number</u>	<u>Description</u>
D001	Acetic Anhydride Bicyclononadiene Butadiene, 1,3 Butanol, Sec-Butylamine T-Cellosolve Solvent Diacetone Alcohol Dicyclopentadiene Diisobutyl Ketone Diisobutyl Ketone-isomer Diisopropylamine Divinylcyclonorborene Ethanol Ethanolamine Ethyl amine Ethyl Alcohol Ethyl Benzene Ethylenenorbornene Iso-Octanol Isoheptyl Ketone Isopentane Isophorone Mids Isopropanol Isopropyl Acetate Isopropylamine Kerosene (Varsol) Mesityl Oxide Methylamyl Alcohol Methyl Cellosolve Methlisobutyl Ketone

	Methyl Vinylnorbornene Monomethylamine Propanol, N- Propylene Oxide Styrene Vinylcyclohexane Vinylnorbornene
D002	Ammonium Hydroxide Methamine Hydrochloride Sodium Hydroxide Potassium Hydroxide
D004	Arsenic Arsenic Acid
D006	Cadmium Cadmium Acetate
D007	Chrome Resins Chromium Potassium Chromate Sodium Chromate Chromium Oxide
D008	Lead, Lead Oxide Lead Tetra-Acetate
D009	Mercural Reagent Mercuric Bromide Mercuric Chloride Mercury
D011	Silver Chloride, Silver Silver Nitrate
D013	Lindane
D014	Methoxychlor
D031	Heptachlor
F002	Spent Solvents
F003	Spent Solvents
F005	Spent Solvents
F039	Multi-Source Leachate
K156	Carbamate Waste (Organic)
K157	Wastewaters from Carbamate Production

K158	Baghouse Dust (Carbamate Production)
P012	Arsenic Trioxide
P022	Carbon Disulfide
P059	Heptachlor and its Epoxide
P064	Methyl Isocyanate
P066	Methomyl
P070	Aldicarb
P095	Phosgene
P127	Carbofuron
P128	Mexacarbate
P189	Carbosulfan
P194	Oxymyl
U001	Acetaldehyde
U002	Acetone
U003	Acetonitrile
U004	Acetophenone
U012	Aniline
U019	Benzene
U028	Bis (2-Ethyl Hexyl) Phthalate
U044	Chloroform
U048	4-Chlorophenol
U052	Cresol
U056	Cyclohexane
U057	Cyclohexanone
U069	Dibutyl Phthalate
U070	O-Dichlorobenzene
U073	3,3 Dichloro Benzide

U075	Dichlorodifluoromethane
U080	Dichloromethane
U088	O-Diethylphthalate
U091	3,3 Dimethoxybenzidine
U102	Dimethyl Phthalate
U105	2,4 Dinitrotoluene
U106	2,6 Dinitrotoluene
U112	Ethyl Acetate
U113	Ethyl Acrylate
U117	Ethyl Ether
U121	Trichlorofluoromethane
U122	Formaldehyde
U135	Hydrogen Sulfide
U154	Methanol
U161	Methyl Isobutyl Ketone
U165	Nephthalene
U169	Nitrobenzene
U182	Paraldehyde
U188	Phenol
U190	Phthalic Anhydride
U191	2-Picoline
U196	Pyridine
U210	Tetrachloroethylene
U211	Carbon Tetrachloride
U220	Toluene
U239	Toluene Diisocyanate

U279	Carbaryl
U410	Thiodicarb (Larvin)
U411	Propoxur

B-2 The permittee shall not dispose of hazardous waste from off site in the Goff Mountain Landfill.

B-3 The permittee shall not dispose of acute hazardous waste such as F020, F021, F022, F023, F026 and F027 in the Goff Mountain Landfill.

B-4 The permittee shall not dispose of containerized waste or liquid waste in the Goff Mountain Landfill.

III- C DESIGN AND OPERATING REQUIREMENTS

C-1 The permittee shall provide a liner system for the modification/expansion area of the landfill. The liner shall prevent any migration of the waste out of the landfill.

C-2 The leachate collection and removal system must be maintained immediately above the liner to collect and remove leachate from the landfill to ensure that leachate depth over the liner does not exceed 30 cm.

III-C-3 LEACHATE COLLECTION AND REMOVAL SYSTEM (LCRS)

The permittee shall continue to provide LCRS immediately above the top liner consisting of HDPE composite drainage net to collect and remove leachate from the landfill during the active life and during the post-closure care period. The owner or operator is required to have a leak detection system under 264.301(c) or (d) must record the amount of liquids removed from each leak detection system once a week during the active life and closure period and once a month during the post-closure period.

III-C-4 FINAL CAP COVER

The permittee shall continue to cover the waste to prevent the exposure to elements and prevent the downward movement of rain and storm water to the waste placed below. The cover shall consist of HDPE geomembrane and/or soil of hydraulic conductivity not less than 1×10^{-7} cm/sec which shall be placed directly over the waste and under the drainage layer of hydraulic conductivity not less than 1×10^{-2} cm/sec or hydraulic transmissivity 3×10^{-5} m²/sec or more. The drainage layer shall be covered with top soil of sufficient thickness to sustain the growth of grass to guard against soil erosion or abrasion of the cover.

III-C-5 ACTION LEAKAGE RATE

The permittee shall maintain the action leakage rate of the detection and collection system as required by 40 CFR 264.302.

III-C-6 RESPONSE ACTION

The permittee shall have a response action plan in place in accordance with 40 CFR 264.30 and 264.304.

III – D MONITORING AND INSPECTION

The permittee shall inspect the landfill once a week while in operation and immediately after storms. The permittee shall follow the inspection schedule in Attachment 2.

III-E- SPECIAL REQUIREMENTS FORIGNITABLE OR REACTIVE WASTE

The permittee shall not place ignitable or reactive waste in the Goff Mountain Landfill unless the waste and landfill meet all applicable requirements of part 268; and

1. The resulting waste, mixture or dissolution of the material no longer meets the definition of ignitable or reactive waste under 40 CFR 261.21 or 261.23 and
2. Section 264.17 (b) is complied with.

III-F- SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

The permittee shall not place incompatible wastes and materials in the landfill unless 40 CFR 264.17(b) is complied with.

III-G- SURVEYING AND RECORD KEEPING

The permittee must maintain the following items in the operating record required under 40 CFR 264.73:

- (1) On a map, the exact location and dimensions, including depth of each lift with respect to permanently surveyed bench marks; and
- (2) The contents of each lift and the approximate location of each hazardous waste type within the lift.

III-H- CLOSURE AND POST-CLOSURE CARE

The permittee must provide cover to each lift or final cover designed and constructed to:

- (1) Provide long term minimization of liquids through the closed landfill;
- (2) Function with minimum maintenance;
- (3) Promote drainage and minimize erosion of the cover;
- (4) Accommodate settling and subsidence so that the cover's integrity is maintained.
- (5) After final closure, the permittee must comply with all post-closure requirements contained in 40 CFR 264.117 thru 264.120, including maintenance and monitoring throughout the post-closure care period.